

REMARKS

Attorney for applicant has carefully reviewed the outstanding Office Action on the present application. Applicant has amended Claims 9, 11, 12, 14, and 15, as well as canceled Claims 1-8, 10, and 13.

Applicant's attorney would like to thank the Examiner for correcting the citation of U.S. patent publication No. 2002/0028422 A1 in the initialed Form PTO/SB/08A.

Please note that applicant's attorney has not underlined the phrase "characterized in that" when amending the claims. Rather, the phrase "characterized in that" was underlined in the original claims. Applicant's attorney has deleted the phrase "characterized in that" in the amended claims.

Claims 1-8, 12, and 15 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Specifically, the Examiner indicates that he is unclear about the following phrases: "cutting manner," "non-cutting manner," and "weakly cutting manner." In response thereto, the applicant has amended (1) the phrase "cutting manner" with the phrase "sharply formed," (2) the phrase "non-cutting manner" with the phrase "bluntly formed," and (3) the phrase "weakly cutting manner" with the phrase "sharply formed."

Further, Claims 4, 8, 12, and 15 have been rejected for being multiple dependent claims, which depend from other multiple dependent claims. The rejection of Claims 4 and 8 have been obviated by the cancellation herein of Claims 4 and 8. Claims 12 and 15 have been amended in order to comply with the requirements of 35 U.S.C. 112.

Claims 1, 4, 5, and 8 have been rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,871,356 to Guedj. Claims 2, 3, 6, and 7 have been rejected under 35 U.S.C. 103(a) as being unpatentable over the Guedj reference, while Claims 9-15 have been rejected under 35 U.S.C. 103(a) as being unpatentable over the Guedj reference in view of U.S. Patent No. 3,564,945 to Bradley. The rejection of Claims 1-8, 10, and 13 have been obviated by the cancellation herein of these claims.

Independent Claim 9 has been amended in order to emphasize and clarify novel features of the present invention. More particularly, Claim 9 has been amended to include the features from Claims 10 and 13. As recited in amended Claim 9 (and as best shown in Figs. 1A and 1B), the pilot drill (1) includes tip cutting edges (101) that are **sharply** formed, followed by guide cutting edges (112) that are **bluntly** formed, followed by step cutting edges (125) that are **sharply** formed, followed by a drill neck (12) with a bevel (123) that is **sharply** formed. Amended Claim 9 also recites (and as best shown in Figs. 2A and 2B) a step drill (2) that includes tip cutting edges (201) that are **sharply** formed, followed by guide cutting edges (212) that are **bluntly** formed, followed by step cutting edges (225) that are **sharply** formed, followed by a drill neck (22) with a bevel (223) that is

sharply formed.

The sharply formed and center-cutting tip of the cutting edges at the pilot tip of the pilot drill of the present invention are used for precise center punching and for forming of a pilot bore. Thus, the claimed drill set of the present invention avoids the necessity of a round bur within the drill set which is normally used for center punching. After a visual control of the direction of the pilot bore within the cortical bone, the blunt cutting edges arranged next to the tip of the cutting edges and the sharply formed bevel arranged above the step are used to correct the axial direction by maintaining the precision of the bore.

It is respectfully submitted that the Guedj reference and the Bradley reference, whether considered individually or in combination with each other, do not anticipate or make obvious the present invention as recited in amended independent Claim 9. The drill disclosed in the Guedj reference is structurally different than the pilot drill or the step drill recited in amended Claim 9. For example, the Guedj reference does not disclose or suggest a drill with tip cutting edges that are sharply formed and center-cutting. Further, the Guedj reference is void of any disclosure or suggestion of a drill that has **sharply** formed tip cutting edges (101), followed by **bluntly** formed guide cutting edges (112), followed by **sharply** formed step cutting edges (125), followed by a drill neck (12) with a **sharply** formed bevel (123). Accordingly, the Guedj reference does not disclose or suggest the drill set recited in amended Claim 9.

With respect to the Bradley reference, it discloses a step drill having a number of steps successively widening in diameter. The step drill disclosed in the Bradley reference is used for cutting into or through metal or other materials such as synthetic resins. There is no disclosure or suggestion in the Bradley reference of a step drill that has **sharply** formed tip cutting edges (201), followed by **bluntly** formed guide cutting edges (212), followed by **sharply** formed step cutting edges (225), followed by a drill neck (22) with a **sharply** formed bevel (223). Accordingly, the Bradley reference does not disclose or suggest the drill set recited in amended Claim 9.

In view of the foregoing circumstances, even if it were obvious to combine the drill of the Guedj reference with the drill of the Bradley reference, the resulting combination would not result in the present invention, since it would still lack a drill that has **sharply** formed tip cutting edges, followed by **bluntly** formed guide cutting edges, followed by **sharply** formed step cutting edges, followed by a drill neck with a **sharply** formed bevel, as recited in amended Claim 9. Accordingly, applicant's attorney respectfully requests that the Examiner withdraw his rejection based upon the Guedj and Bradley references.

In the foregoing circumstances, amended independent Claim 9 is believed to be in condition for allowance. Because Claims 11, 12, 14, and 15 depend from amended independent Claim 9, they are also in condition for allowance.

• • • • • Appln. No. 10/549,266
Amendment dated Monday, August 13, 2007
Reply to Office Action mailed February 12, 2007

In view of the foregoing amendments and remarks, applicant's attorney respectfully requests reexamination and allowance of pending Claims 9, 11, 12, 14, and 15. If such action cannot be taken, the Examiner is cordially invited to place a telephone call to applicant's attorney in order that any outstanding issue may be resolved without the issuance of a further Office Action.

Enclosed is a Petition for a three-month extension of time to and including Monday, August 13, 2007, for which a \$510 fee is due. The Petition authorizes the Examiner to charge this \$510 fee to Deposit Account No. 503571. If there are any additional fees due as a result of this Amendment, including extension and petition fees, the Examiner is authorized to charge them to Deposit Account No. 503571.

Respectfully Submitted,

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